DEWESoft[®]

DYNAMIC SIGNAL ANALYSIS & NVH SOLUTIONS

WELCOME TO THE DEWESOFT EXPERIENCE. ONE SOFTWARE, ONE HARDWARE, ONE SOLUTION.



ULTIMATE ALL-IN-ONE TOOL FOR ANY NVH CHALLENGE

EASY TO USE AND VERSATILE

Get your measurements in 30 seconds.

DEEP IN FUNCTIONALITY

With an amazing set of features, Dewesoft instruments are used in most advanced research labs around the world; all functions are available at the same time in one software.

DUAL CORE HIGH DYNAMIC

Dewesoft Sirius increases signal dynamic to 160 dB by using two ADC converter per channel with different gains. Both - time domain and frequency domain data have an amazing dynamic signal performance.

SUPERCOUNTER

Patented Supercounter technology provides perfect angle and angular speed information which is a base to align data from time to angle domain.

FULLY SYNCHRONISED

Data from various sources are perfectly aligned: Analog, Digital, Counter, Vehicle buses, Video, ...





ALL-IN-ONE

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Dewesoft hardware can perform a wide variety of measurement tasks. Every function is available in a single Dewesoft X3 software package.

MODULAR AND EXPANDABLE

Can you imagine FFT analyzer with thousands of channels? We can... Systems can be gradually expanded from one to unlimited number of channels.

TOTAL SOLUTION

Combine your NVH measurements with data recording, electrical power, combustion, vehicle dynamic and other powerful Dewesoft tools.

PLUG AND PLAY

Any device, sensor or signal. Smart sensors with TEDS are recognized automatically.

NO HIDDEN COSTS

Software license is included in every system. Free lifetime software upgrades included. No yearly maintenance or upgrade fees, free online training courses.

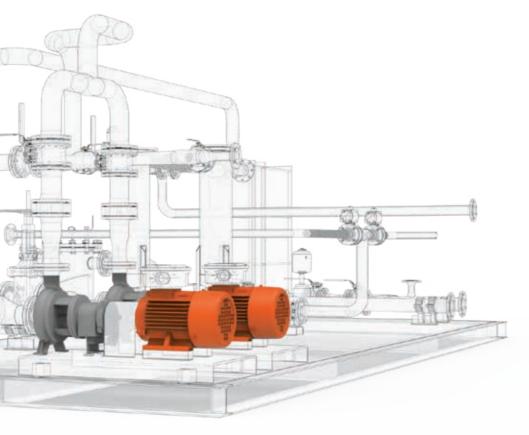


FFT ANALYZER



Scan for more information

THE FFT ANALYZER IN DEWESOFT HAS IT ALL: TOP PERFORMANCE, ADVANCED CURSOR FUNCTIONS, HIGH FREELY SELECTABLE LINE RESOLUTION, FLEXIBLE AVERAGING AS WELL AS ADVANCED FUNCTIONS FOR IN-DEPTH ANALYSIS.





CURSOR VALUE ESTIMATE

Innovative window interpolation technique allows precise amplitude and frequency estimation.

CURSORS AND MARKERS

Maximum marker, free marker, zoom marker, sideband marker, harmonic marker, RMS marker.

ANY LINE RESOLUTION

Selectable line resolution up to 64000 lines for most demanding tasks.

AVERAGING

Overall (averaged) FFT with linear, peak and exponential averaging or block-based calculation is available.

ADVANCED MATH

Auto spectrum, cross spectrum, complex spectrum, waterfall spectrum, cepstrum (for bearing faults, speech processing), full FFT (for rotor whirl analysis), STFT (for non stationary signals), envelope detection (for bearing fault analysis).

OCTAVE ANALYZER



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OCTAVE ANALYSIS IS AN INDISPENSABLE TOOL FOR SOUND MEASUREMENT AS WELL AS PREDICTIVE MONITORING. DEWESOFT OCTAVE ANALYSIS SOLUTION MEETS ALL OF THE IEC AND ANSI CLASS I SPECIFICATIONS FOR OCTAVE FILTERS.





SYNTHESIZED ANALYSIS

Extremely fast calculation from the frequency domain in large channel count systems.

FREQUENCY AVERAGING

Overall (averaged) FFT with linear, peak and exponential averaging or block-based calculation is available.

TRUE OCTAVE ANALYSIS

True octave filters exactly represent the filter sets defined by the IEC 61260 standards and offer the user a real time response for vivid live visualization of data, crucial for advanced acoustic analysis.

SEAMLESS ACOUSTIC SUITE INTEGRATION

Octave analyzer is perfectly integrated with sound level, sound power, sound intensity and other modules for advanced sound analysis.

RESOLUTION UP TO 1/24 OCTAVE

For deep analysis of data very narrow band analysis up to 1/24th octave.

FREQUENCY SOUND WEIGHTING

Standard frequency weighting curves (A, B, C, D and Z) can be applied directly in frequency domain for analysis of sound.

SOUND LEVEL METER

ACOUSTICS

WE PRIDE OURSELVES ON CERTIFIED COMPLIANCE WITH INTERNATIONAL STANDARDS. MAXIMUM ACCURACY AND HIGH DYNAMIC RANGE HAVE BEEN RE-IMAGINED WITH THE DEWESOFT APPROACH. REGARDLESS OF THE ACOUSTICS MEASUREMENT, SLM PLUGIN IS ALWAYS AT THE HEART OF IT.



ADVANCED MATH - ALL AT THE SAME TIME

Predefined standard frequency weighting A, B, C, D, and Z), time weighting (Fast, Slow or Impulse), sound pressure level, equivalent, peak, minimum & maximum sound pressure levels, sound energy, impulsivity of sound, statistical noise level (LAF1, 5, 10, 50, 90, 95 and 99 % classes of values) are all available at the same time.

UNMATCHED FLEXIBILITY

SLM supports measurements in either air or water and can be combined with all other physical measurement parameters, vehicle bus systems, video, GPS and other math to build a thorough image of your entire measurement.

SUPPORTED STANDARD IEC 61672 Class 1 sound level meter

RICH VISUALIZATION

Flexible displays offering digital meters, analog bars, time domain recorders, narrow band FFT and octave analyzers can be freely combined to show your SLM data in real time as well as in post processing.

HIGH DYNAMIC RANGE

Our top-of-the-class data acquisition hardware with 160 dB dynamic range in the time and frequency domain allows direct input of IEPE compatible microphones. Microphones with support for TEDS automatic recognition. Dewesoft data acquisition system can be scaled for any number of microphones, microphones can be effortlessly calibrated with a calibrator.



SOUND POWER



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ACOUSTICS

WIDELY ESTABLISHED SOUND POWER MEASUREMENTS WITH FAMILIAR, DISTINCTIVE USER INTERFACE AND INDUSTRY UNMATCHED FLEXIBILITY - THE SOUND POWER SOLUTION MERGES BEST OF BOTH WORLDS. RATING AND COMPARISON OF DIFFERENT NOISE SOURCES WITH EASE AND EXACTNESS WHILE SIMULTANEOUSLY MONITORING ANY NUMBER OF ADDITIONAL PROCESS PARAMETERS.



SUPPORTED STANDARDS

Fully compliant with relevant sound power standards ISO 3741,ISO 3743-1, 3743-2, ISO 3744, ISO 3745, ISO 6393, ISO 6394, ISO 6395 and ISO 6396.

RAPID REAL TIME AND OFFLINE CALCULATION

All calculated parameters are available during measurement as well as offline; rapid calculation of correction factors K1 (background noise measurement), K2 (room correction with integrated RT60 module), C1, C2 and C3 (deviations due to meteorological reasons - temperature and barometric pressure); support for raw time domain data storing and offline sound power calculation.

EFFORTLESS STEP-BY-STEP PROCEDURE

You will be guided step by step through the entire measurement procedure, with our clear and comprehensive user interface.

HEAVY MACHINERY

Includes measurement procedures for testing heavy machinery.

PREDEFINED REPORT

After testing, present your results using our pre-defined and yet flexible report templates.

SOUND INTENSITY

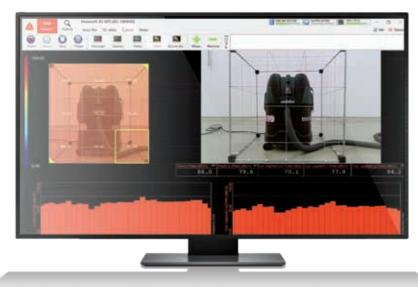


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ACOUSTICS

THE PERFECT SOLUTION FOR NOISE SOURCE DETERMINATION BROUGHT TO AN ENTIRELY NEW LEVEL. SOUND INTENSITY MEASUREMENTS RE-IMAGINED IN A SIMPLE AND INTUITIVE WAY WHILE PERPETUATING UTMOST PRECISION AND FLEXIBILITY UNMATCHED IN THE INDUSTRY. FOR EXAMPLE MEASURING PROCESS PARAMETERS AND RECORDING VIDEO IN PARALLEL.





PHASE CALIBRATION

Straightforward, automated phase calibration and correction with a single button click.

IEC 61672 CALIBRATED

Complete measurement chain of sound intensity solution can be calibrated according to **IEC 61672.**

QUICK SOUND SOURCE IDENTIFICATION

Effortlessly identify noise sources with an easy-to-use interface.

ADAPTED FOR INDUSTRY

No need for a special environment makes it perfect for measuring on big chillers, transformers and other large-scale industrial applications.

SUPPORTED STANDARDS

Complies to Sound Intensity-based Sound Power calculation - **Discrete points method (ISO 9614-1)** and **Scanning method (ISO 9614-2).**

UNMATCHED FLEXIBILITY

Measurement of additional process parameters like vibration, video and others, everything perfectly synchronized.

SUPPORTED HARDWARE

Plug and play support for different intensity probes from all major manufacturers, integrating full remote control functionality.

REVERBERATION TIME RT60



Scan for more information

ACOUSTICS

WHEN ROOM ACOUSTICS PROPERTIES ARE THE ISSUE, RT60 SOLUTION REPRESENTS AN ESSENTIAL TOOL FOR OBTAINING ACCURATE MEASUREMENT RESULTS. EASY SETUP ENABLES RELIABLE MEASUREMENT FOR EFFECTIVE MODIFICATION OF ROOM PARAMETERS AND EASY TO ACHIEVE DESIRED REVERBERATION TIME.



SUPPORTED STANDARDS

Fully complies with the **ISO 354** standard using integrated response method.

DIRECT MICROPHONE INPUT

Our data acquisition hardware with 160 dB dynamic range allows direct input of IEPE compatible microphones with support for TEDS automatic recognition. Data acquisition system can be scaled for any number of microphones.

EVALUATION RANGES

Different evaluation ranges for reverberation of time estimation are supported (T20, T30 and T60).

PARAMETER ESTIMATION

Estimation of modal decay parameters from noisy measurements of reverberant and resonating systems using **Lundeby method.**

ABSORPTION COEFFICIENT CALCULATION

Calculate absorption coefficient and make a report with provided report template.

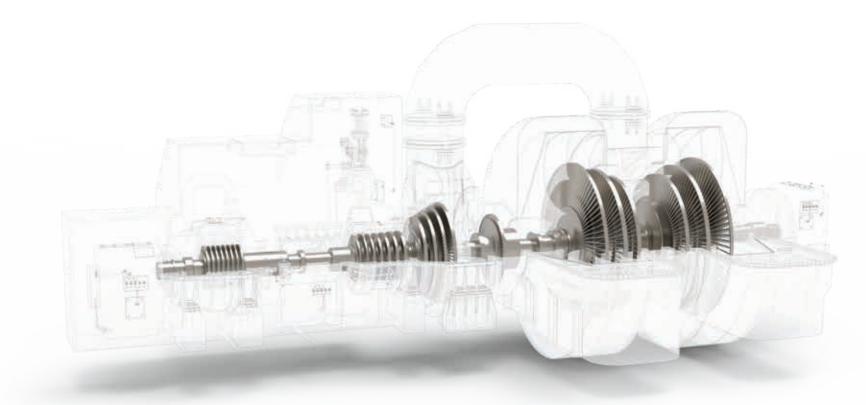


ORDER TRACKING

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ROTATING MACHINERY

ORDER TRACKING IS A PERFECT TOOL TO DETERMINE THE OPERATION CONDITION OF THE ROTATING MACHINES (RESONANCES, STABLE OPERATION POINTS, DETERMINING CAUSES OF VIBRATIONS). IT IS EVEN MORE POWERFUL IN COMBINATION WITH OTHER MATH MODULES LIKE TORSIONAL ANALYSIS, COMBUSTION OR POWER ANALYSIS. ORDER TRACKING IS A TRUE ECG FOR MACHINES.



TIME, FREQUENCY AND ORDER DOMAIN - AT THE SAME TIME

Due to a high sampling and advanced alias free resampling mechanism, data are available in all three domains (time, frequency and order), everything at the same time in one screen and data file, perfectly synchronized.

ANGLE SENSOR SUPPORT

All angle sensors from tacho, encoder, geartooth, geartooth with missing or double teeth, tape sensors and others are supported to perfectly determine angle and rotational speed with 10 nsec resolution using SuperCounter technology.

ADVANCED MATH

Any order and time domain harmonics can be easily extracted with amplitude and phase, available versus rotational speed or time in run up or coast down modes.

RICH VISUALIZATION

Frequency and order 3D waterfall plots provide a great tool to determine machine condition. Nyquist, bode campbell plots are available for presentation of the data. Orbit analysis with raw or order view is an efficient tool for turbomachinery analysis.

ROTATIONAL AND TORSIONAL VIBRATIONS



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ROTATING MACHINERY

TORSIONAL VIBRATIONS ARE QUITE OFTEN A SOURCE OF PROBLEMS AND FAULTS ON LONG SHAFTS. ROTATIONAL AND TORSIONAL VIBRATION MODULE ALONG WITH ORDER TRACKING ARE A STRONG TOOL TO TROUBLESHOOT SUCH ISSUES IN AUTOMOTIVE, INDUSTRIAL OR POWER-GENERATION APPLICATIONS.



EASY SENSOR SETUP

The Math module supports any type of sensor output, and the sensor type can be totally different at each end of the rotor. SuperCounter technology provides 10 ns resolution in determining rotational angle and speed.

ACCESS TO ALL DATA

All data, such as reference angle, individual sensor rotational angle, speed and acceleration, torsional angle and velocity are readily available for advanced analysis.

ADVANCED MATH

Different input filters and rotational DC filters are available as well as the option to enter rotational speed ratio for gearbox analysis.

ORDER TRACKING INTEGRATION

Closely combined with order tracking, advanced data analysis is available based on the same angle sensors as the source of frequency.

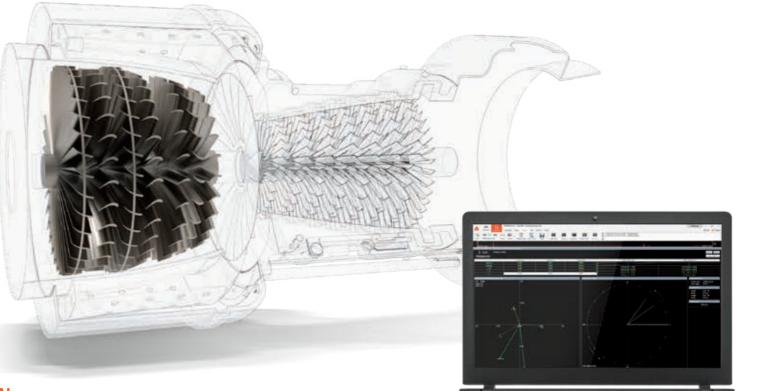
BALANCING



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ROTATING MACHINERY

BALANCED ROTORS ARE ESSENTIAL FOR SMOOTH OPERATION OF ROTATING MACHINERY. IMBALANCE WILL CREATE HIGH VIBRATIONS, REDUCING MACHINE LIFE, CAUSING MATERIAL DEFECTS AND DOWN TIMES. THE BALANCING MODULE IS A GREAT TOOL TO ELIMINATE UNBALANCE ON SITE.



SINGLE OR DUAL PLANE BALANCING ON SITE

Perform single plane (narrow disc) or dual plane (long shaft) balancing.

RICH VISUALIZATION

Results from all runs are displayed in order to ease a decision for the next steps and to evaluate the stability of the measurement. RPM display has color indicator to determine in-out range.

SIMPLE STEP-BY-STEP PROCEDURE

Users are guided through the balancing steps for flawless operation including setup of angle sensor with live preview. Multiple modules can be combined for multi-axis balancing to save time and improve the quality of balancing.

WEIGHT SPLITTING

Adds the possibility to split needed balancing weight into equidistantly spaced points, for example holes on the rotor.

STORAGE OF INFLUENCE VECTOR

Influence vectors can be stored so that additional test runs are not needed for repetitive balancing of the same machine.

HUMAN BODY VIBRATION



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THIS MODULE MEASURES THE EFFECT OF VIBRATION ON THE BODY OF A HUMAN BEING. THE EXTRACTED PARAMETERS ALLOW THE JUDGMENT OF RISK OF INJURIES FOR WORKERS EXPOSED TO VIBRATION. WHOLE-BODY AND HAND-ARM MEASUREMENT IS SUPPORTED ACCORDING TO INTERNATIONAL STANDARDS.



SUPPORTED STANDARDS ISO 5349, ISO 8041, ISO 2631-1 and ISO 2631-5.

WHOLE BODY VIBRATION

Applicable to motions transmitted from workplace machines and vehicles to a person's body through a supporting surface.

ADVANCED MATH

All data like RMS, Peak, Crest, VDV, MSDV, MTVV, Weighted raw, al (ISO 2631-5), al and D (ISO 2631-5) are available.

HAND ARM VIBRATION

Sensors are installed on special adapters for fixing on a handle or between fingers.

DATA ANALYSIS

Dewesoft X is a great base for R&D work related to reduction of the vibration due to its deep data analysis functionality.



MODAL ANALYSIS

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STRUCTURAL DYNAMICS

MODAL TEST IS AN INDISPENSABLE TOOL TO DETERMINE THE NATURAL FREQUENCIES AND MODE SHAPES OF ANY STRUCTURE - OFFERS EASY TO USE OPERATION WITH FAST SETUP WHILE PROVIDING RICH VISUALIZATION AND ANIMATION OF RESULTS.





SHAKER MODE

In combination with built-in function generator module, the system allows any type of excitation; Sine, Noise, Burst and Chirp.

IMPACT HAMMER MODE

Allows grouping, rejecting and repeating measurement points; multiple reference and excitation points are supported. Ability to move excitation and response points is ensuring full flexibility when performing measurements.

ADVANCED MATH

Operating deflection shapes (ODS), mode indicator functions (MIF) and COLA analysis are fully implemented while operational modal analysis (OMA) and time domain ODS are available with close integration in connection to external software package.

RICH VISUALIZATION

Animation of structures in all three axes, and with different projections is available - both in real time and after measurement. This allows real time quality analysis, as well as the repetition of any measurement at any point. The Modal Circle tool determines the exact resonance, and calculates the viscous or structural damping factor.

UNV IMPORT/EXPORT

Geometry can be created using either the built-in editor, or imported from a UNV file. All data, from raw time domain to auto spectrum and FRFs can be exported using standard UNV file format.



SHOCK RESPONSE SPECTRUM (SRS)



MECHANICAL SHOCK PULSES ARE OFTEN ANALYZED IN TERMS OF THE SHOCK RESPONSE SPECTRUM. THE SRS ASSUMES THAT THE SHOCK PULSE IS APPLIED AS A BASE INPUT TO AN ARRAY OF INDEPENDENT SINGLE-DEGREE-OF-FREEDOM SYSTEMS.



Selection of damping ratio or quality factor can be easily updated even in offline mode.

EASY SETUP Setup of sensors and system is fast and simple.

ADVANCED MATH

All relevant composite/maximax, primary, residual are calculated; results in frequency domain spectrum can be shown as acceleration, velocity or displacement.

SELECTABLE FREQUENCY SPAN

Freely definable calculation range for the frequency spectrum.

DATA EXPORT

Data can be exported in virtually any data format used for NVH analysis.







ONE HARDWARE.

ACCELEROMETERS

INTERFACES & SENSORS





	I1T-50G-1	13TI-50G-1	I1TI-50G-2	C1T-100G-1	I1TI-500G-1	I1AI-500G-1	I3T-50G-1
Number of axis	1	3	1	1	1	1	3
Sensitivity	100 mV/g	100 mV/g	100 mV/g	50 pC/g	10 mV/g	10 mV/g	100 mV/g
Range	50 g	50 g	50 g	100 g	500 g	500 g	50 g
Туре	IEPE	IEPE	IEPE	Charge	IEPE	IEPE	IEPE
Frequency range	+/- 5 %: 0.3 to 5000 Hz	+/- 10 %: 2 to 5000 Hz	+/- 10 %: 0.3 to 10 000 Hz	+/- 8 %: up to 5000 Hz	+/- 10 %: 1 to 10 000 Hz	+/- 10 %: 1.1 to 10 000 Hz	+/- 10 %: 0.3 bis 10 000 Hz
TEDS	yes	yes	no	no	yes	yes	yes
Features	Miniature size	Case isolated, triaxial	Case isolated, industrial	High temperature	Case isolated, modal	Ultra-miniature	Low noise, triaxial
Dimensions	10.2 x 10.2 x 10.2 mm	1 5.5 x 15 x 15 mm	17.5 x 42.2 mm	12.7 x 24.4 mm	19.4 x 12.7 x 16.1 mm	9 x 6 mm	12 x 12 x 11 mm
Weight	4.3 g	10 g	44 g	25 g	10 g	2 g	5.6 g
Temperature range	-51 ℃ +85 ℃	-51 ℃ +85 ℃	-51 °C +121 °C	-51 ℃ +191 ℃	-40 °C +85 °C	-51 ℃ +121 ℃	-51 ℃ +82 ℃

ANGLE SENSORS

INTERFACES & SENSORS

TACHO SENSORS





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TACHO LEVEL CONVERTER

DS-TACHO1- tacho level adapter

Description	Converts analog tacho signal to digital signal with adjustable trigger level
Trigger/retrigger level	$\pm 10~\text{mV}\dots\pm 2~\text{V}$ (adjustable with screwdriver)
Max input voltage	±50 Vdc, ±100 Vac
Power supply output	5VDC (max current depending on used Dewesoft device: e.g DEWE- 43:max 800 mA)

	DS-TACHO2	DS-TACHO3	DS-TACHO4
Light source	LED	Laser (red class 2)	LED
Housing	Stainless steel	Stainless steel	Stainless steel
Cable length	2.5m cable	2.5m cable	5m optical fiber and trigger box
Frequency range	Up to 4kHz	Up to 4kHz	up to 1MHz
Distance to object	Up to 1m	Up to 7.5m	from 1-10 mm
Power supply	3-15VDC, 45mA	3-15VDC, 45mA	10-30VDC
Operating temperature	-10°C to +70°C	-10°C to +70°C	-10°C to +70°C
Dimensions	73mm length, 16mm diameter	73mm length, 16mm diameter	M6 x 20mm with 2.5m cable
Connector	L1B7m connector for SIRIUS and DEWE-43 counter input	L1B7m connector for SIRIUS and DEWE-43 counter input	L1B7m connector for SIRIUS and DEWE-43 counter input
Accessories	30cm reflector band	30 cm reflector band	1m reflector band with 2mm black/white grid

MICROPHONES

INTERFACES & SENSORS

Scan for more information

MICROPHONES

SOUND INTENSITY PROBE

MODAL HAMMER



	46AE - 1/2" CCP Free-field Standard Microphone Set	146AE - 1/2" CCP Free-field Rugged Microphone Set IP67	46BE 1/4" CCP Free-field Standard Microphone Set w/o cable	46DE 1/8" CCP Pressure Standard Microphone Set
Frequency range (±1 dB)	5-10 kHz	5-10 kHz	10-40 kHz	10 - 25 kHz
Frequency range (±2 dB)	3.15-20 kHz	3.15-20 kHz	4-80 kHz	6.5 - 70 kHz
Dynamic range lower limit with GRAS preamplifier	17 dB(A)	18 dB(A)	35 dB(A)	52 dB(A)
Dynamic range upper limit with GRAS CCP preamplifier	138 dB	138 dB	160 dB(A)	174 dB
Set sensitivity @ 250 Hz (±2 dB)	50 mv/Pa	50 mV/Pa	3.6 mV/Pa	/
Set sensitivity @ 250 Hz (±3 dB)	/	/	/	0.8 mV/Pa
IEC 61094-4 Compliance	WS2F	WS2F	WS3F	manufactured within same tolerances
Temperature range, operation	-30 to 85 °C	-40 to 125 °C	-30 to 85°C	-30 to 70°C
Temperature range, storage	-40 to 85 °C	-40 to 85 °C	-40 to 85°C	-40 to 85°C
TEDS	yes	yes	yes	yes
Weight	33 g	35 g	8 g	7 g



50GI-R CCP Intensity Probe with Remote Control

Sound-intensity microphone pair 40GK, phase-matched	1/2" Free-field
Preamplifiers 26CB	Phase-matched
Frequency response and phase-matching	IEC 61043 class 1
Frequency range (±2 dB)	IEC 61043 Class 1
Frequency range with 100 mm spacer	30 Hz – 1 kHz
Frequency range with 50 mm spacer	80 Hz – 1.5 kHz
Frequency range: with 25 mm spacer	120 Hz – 5 kHz
Frequency range: with 12 mm spacer	200 Hz – 10 kHz
TEDS	yes
Weight	400g



IH-440N-1				
Number of axis	1			
Sensitivity	50 mV/lbf (=11,24 mV/N)			
Range	100 lbf (=444,82 N)			
Туре	IEPE			
Frequency range	75 kHz resonance frequency			
TEDS	yes			
Features	modal hammer with TEDS			
Dimensions	221 x 71 mm			
Weight	100 g (head)			
Temperature range	-40 °C +65 °C			

ACTUATORS

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SHAKERS



Permanent Magnet Shaker					
	PM-20	PM-100	PM-250	PM-440	
Output Force (Sinus)	20 N	100 N	250 N	440 N	
Frequency range	0 - 12 kHz	0 – 8 kHz	0 – 5 kHz	0 – 5 kHz	
Displacement (Pk-Pk)	5 mm	10 mm	25 mm	25 mm	
Max Acceleration	30 g	45 g	80 g	80 g	
Amplifier (Integrated, E xternal)	Ι	I	E	E	

- Embedded power amplifier and signal generator for PM-20, PM-100
- Lightweight, durable, portable and easy to use
- Adjustable trunnion base provides high degree of flexibility
- Broad frequency range

Modal Shaker					
	MS-20	MS-100	MS-250	MS-440	
Output Force (Sinus)	20 N	100 N	250 N	440 N	
Frequency range	0 – 12 kHz	0 – 8 kHz	0 – 5 kHz	0 – 5 kHz	
Displacement (Pk-Pk)	5 mm	10 mm	25 mm	25 mm	
Max Acceleration	40 g	60 g	100 g	100 g	
Amplifier (Integrated, E xternal)	I	I	E	E	

- Embedded power amplifier and signal generator for MS-20, MS-100
- Modal stinger can be easily adjusted by the throughhole armature
- Lightweight, durable, portable and easy to use
- Adjustable trunnion base provides high flexibility
- Up to 25mm stroke and broad frequency range

Inertial Shaker						
	IS-5	IS-10	IS-20	IS-40		
Output Force (Sinus)	5 N	10 N	20 N	40 N		
Frequency range	10-1000Hz	10-3000 Hz	10-3000 Hz	10-3000 Hz		
Displacement (Pk-Pk)	1 mm	5 mm	8 mm	12 mm		
Total mass	0,06 kg	0,24 kg	0,3 kg	1,2 kg		
Amplifier (Integrated, External)	E	E	E	E		

- Compact and lightweight design
- Superior low frequency performance
- Any angle mounting
- Low friction bearing guided



DEWESOFT® WORLDWIDE: SLOVENIA, Austria, Brasil, China, Denmark, France, Germany, Hong Kong, Italy, India, Russia, Singapore, Sweden, UK, USA, BELGIQUE and PARTNERS INMORETHAN 50 COUNTRIES

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